

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Robert H. Scheer	)	Examiner:	Cuff, Michael A.
Serial No.:	09/867,200	)	Art Unit:	3627
Filed:	May 29, 2001	)	Attny Doc.:	31083.05US3
Title:	Method For Managing Inventory Within An Integrated Supply Chain	)		

APPEAL BRIEF

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Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

Appellant hereby appeals to the Board of Patent Appeals and Interferences from the Examiner's final rejection of claims 4-9 which rejection was set forth in an Office Action mailed on July 31, 2007. A timely Notice of Appeal was filed.

This brief is accompanied by the fee required by 37 CFR § 41.20.

The Commissioner is hereby authorized to charge any fee deficiency or credit overpayment to deposit account number 50-2428 in the name of Greenberg Traurig.

I. Real Party In Interest

The real party in interest is W.W. Grainger, Inc.

II. Related Appeals And Interferences

A Decision On Appeal was rendered in related application serial no. 09/867,174 in which the rejection of the claims was reversed. A copy of this Decision On Appeal is attached.

While an appeal was filed in related application serial no. 09/867,301, the application was allowed before reaching the Board.

III. Status Of The Claims

In the application claims 4-9 remain pending and, having been finally rejected, are the subject of this appeal.

Claims 1-3 were canceled during the course of prosecution.

The Section IX appendix provides a clean, double spaced copy of pending claims 4-9.

IV. Status Of Amendments

The claims are in condition for appeal – no amendments to the claims are pending.

V. Summary Of Claimed Subject Matter

In accordance with 37 CFR § 41.37(c)(1)(v), the following provides a concise explanation of the subject matter defined in each of the independent claims involved in the appeal with reference, by way of example only, to the specification by page and line number and to the drawings by reference characters:

Independent claim 4 is directed to a computer-readable media having computer-executable instructions for managing inventory within a supply chain having a plurality of distribution points, the instructions performing steps comprising:

providing for each of a plurality of items distributed within the supply chain a forecast of demand over a forecast period (Fig. 8, elements 408-411; Page 66, lines 1-15);

using the forecast of demand for each of the plurality of items to establish for each of the plurality of items a critical stocking ratio what indicates a total quantity of each of the plurality of items which can be held in inventory over the forecast period (Fig. 8, element 413; Page 71, lines 3-9);

using the critical stocking ratio for each of the plurality of items to apportion the total quantity of each of the plurality of items which can be held in inventory over the forecast period in shares to the plurality of distribution points in the supply chain by assigning over the forecast period a base stock level for each of the plurality of items at each of the plurality of distribution points in the supply chain and a reorder point for each of the plurality of items at each of the plurality of distribution points in the supply chain (Fig. 8, elements 414 and 415; Page 71, line 20-Page 72, line 16; Page 73, line 15-Page 74-line 4);

determining a replenishment method for each of the plurality of items at each of the plurality of distribution points in the supply chain (Fig. 7; Page 74, lines 4-19); and

executing the replenishment method to create orders for items at any of the plurality of distribution points in the supply chain that fail to have a base stock level for any of the plurality of items thereby causing inventory within the supply chain to be managed in accordance with the critical stocking ratio (Fig. 7; Page 74, lines 4-19).

VI. Grounds Of Rejection To Be Reviewed On Appeal

1. The rejection of claims 4-9 under 35 U.S.C. § 103 based upon the combination of Caveney (U.S. Patent No. 5,608,621) and Tsukishima (U.S. Patent No. 6,535,773).

VII. Argument

A) Summary of the rejection of the claims

Claims 4-9 stand rejected under 35 U.S.C. § 103 based upon the combination of Caveney (U.S. Patent No. 5,608,621) and Tsukishima (U.S. Patent No. 6,535,773).

In rejecting the claims, it was acknowledged that Caveney fails to disclose the use of an inventory management system over a plurality of distribution points in a supply chain. It was alleged, however, that Tsukishima discloses in Col. 7, lines 41-67 a part-based expansion arithmetic unit (34) designed to arithmetically determine inventory allotment (shares apportioned), lot arrangement, and lead time as part of an MRP procedure “in order to optimize the supply chain.” As such, it was concluded that it would have been obvious to modify Caveney with an inventory allotment method “over a plurality of distribution points” as taught by Tsukishima “in order to optimize the supply chain.”

B) Applicable Law

It is well settled that, to establish a *prima facie* case of obviousness, at a minimum the prior art reference (or references when combined) must teach or suggest all the elements claimed. Then, to determine whether there was an apparent reason to combine the known elements in the way claimed, it is necessary to look to interrelated teachings of multiple patents; to the effects of demands known to the design community or present in the marketplace; and to

the background knowledge possessed by a person having ordinary skill in the art. *KSR Int'l Co. v. Teleflex Inc.*, 127 S.Ct. 1727 (2007).

C) Arguments Addressing The Rejection of Claims 4-9

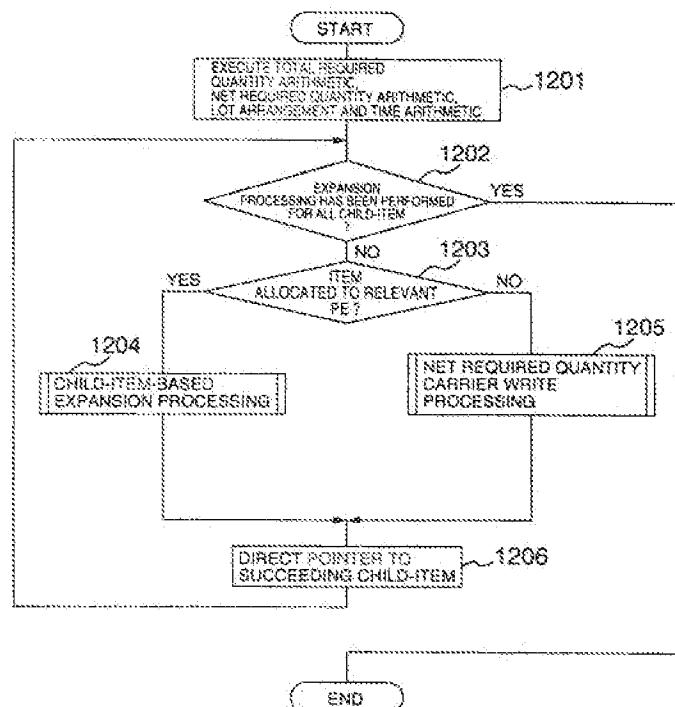
It is respectfully submitted that Tsukishima fails to disclose at least those claimed elements that have been acknowledged to be missing from Caveney and, as such, it is respectfully submitted that the combination of Caveney and Tsukishima cannot support a *prima facie* case of obviousness under 35 U.S.C. § 103.

Considering now Tsukishima, it is respectfully submitted that Tsukishima, like Caveney, fails to disclose, teach, or suggest the claimed using a critical stocking ratio for each of the plurality of items to apportion the total quantity of each of the plurality of items which can be held in inventory over the forecast period in shares to the plurality of distribution points in the supply chain. While Tsukishima may use the word “allotment” in cited to Col. 7, lines 41-67 it is respectfully submitted that Tsukishima is not using the word “allotment” in any manner that is relevant to the claimed using the critical stocking ratio for each of a plurality of items to apportion the total quantity of each of the plurality of items which can be held in inventory over the forecast period in shares to the plurality of distribution points in the supply chain. Rather, in Col. 7, lines 41-67, Tsukishima is merely referring to the fact that the process performed by the relied upon “part-based expansion” arithmetic unit (34) functions to allot inventory items between one of a plurality of processor elements (“PEs”) which together function to determine types of items, quantities of items, and delivery terms for items required for timely manufacture of an article. That the inventory “allotment” generally alluded to in the relied upon Col. 7, lines 41-67 is nothing more than a process for “allotting” items to one of a plurality of processor

elements ("PEs") is particularly described in Col. 14, lines 1-37 and illustrated in the "part-based expansion" process flow chart of Fig. 12, which is reproduced below, as element 1203:

FIG. 12

FLOW CHART OF PART-BASED EXPANSION ARITHMETIC PROCESSING



Thus, when Tsukishima is considered in its entirety as is required, it is respectfully submitted that it is evident that the "allotment" disclosed within Tsukishima is nothing more than a process for *allocating inventory among different processor elements towards determining type of items, quantities of items, and delivery terms for items required for timely manufacture of an article.* As such, it is respectfully submitted that the "allotment" disclosed within Tsukishima and relied upon in the rejection of the claims fails to have any relevance to *using a critical stocking ratio for each of a plurality of items to apportion the total quantity of each of the plurality of items which can be held in inventory over the forecast period in shares to the plurality of distribution points in the supply chain as is expressly recited within the claims.*

Based upon the foregoing it is respectfully submitted that neither Caveney nor Tsukishima disclose, teach, or suggest at least those claimed elements directed to performing inventory management over a plurality of distribution points in a supply chain, particularly the claimed *using a critical stocking ratio for each of a plurality of items to apportion the total quantity of each of the plurality of items* which can be held in inventory over the forecast period *in shares to the plurality of distribution points* in the supply chain. Accordingly, it is respectfully submitted that the combination of Caveney and Tsukishima cannot be said to disclose all of the elements claimed as is required to support a *prima facie* case of obviousness. For at least this reason it is respectfully submitted that the rejection of the claims under 35 U.S.C. § 103 must be withdrawn.

It is additionally submitted that the Appellant concurs with the statement set forth within the Office Action that the Appellant's own application discloses the claimed using a critical stocking ratio to apportion the total quantity of each of the plurality of items which can be held in inventory over the forecast period in shares to the plurality of distribution points in the supply chain. It is, however, respectfully questioned how the fact that the Appellant's own application discloses the claimed elements demonstrates where the reference being relied upon, namely Tsukishima, discloses the same (which Tsukishima does not). Accordingly, because citing to the Appellant's own application neither demonstrates where the claimed elements are shown in the prior art nor demonstrates that the claimed elements are "common sense" as was asserted in the subsequently issued Advisory Action, it is respectfully submitted that the rationale for rejecting the claims set forth within the Office Action and subsequently issued Advisory Action, which relies upon the Appellant's disclosure to the exclusion of the cited references, fails to provide a rational explanation as to why and how one of ordinary skill in the art would have utilized the

cited references to arrive at the exact invention that is set forth within the claims as is required to maintain a rejection under 35 U.S.C. § 103. See MPEP § 706.02(j) and MPEP § 2144.03 citing *In re Lee*, 277 F.3d 1338, 1343-46 (Fed. Cir. 2002) (In reversing the Board's decision, the court stated “‘common knowledge and common sense’ on which the Board relied in rejecting Lee's application are not the specialized knowledge and expertise contemplated by the Administrative Procedure Act. Conclusory statements such as those here provided do not fulfill the agency's obligation....The board cannot rely on conclusory statements when dealing with particular combinations of prior art and specific claims, but must set forth the rationale on which it relies.”). For this still further reason it is respectfully submitted that the rejection of the claims must be withdrawn.

D) Conclusion

It is respectfully submitted that the application is in good and proper form for allowance. Such action of the part of the Board is respectfully requested.

Respectfully Submitted;

Date: December 18, 2007

By:



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VIII. Claims Appendix

The following is a clean copy of the claims involved in the appeal:

4. A computer-readable media having computer-executable instructions for managing inventory within a supply chain having a plurality of distribution points, the instructions performing steps comprising:

providing for each of a plurality of items distributed within the supply chain a forecast of demand over a forecast period;

using the forecast of demand for each of the plurality of items to establish for each of the plurality of items a critical stocking ratio what indicates a total quantity of each of the plurality of items which can be held in inventory over the forecast period;

using the critical stocking ratio for each of the plurality of items to apportion the total quantity of each of the plurality of items which can be held in inventory over the forecast period in shares to the plurality of distribution points in the supply chain by assigning over the forecast period a base stock level for each of the plurality of items at each of the plurality of distribution points in the supply chain and a reorder point for each of the plurality of items at each of the plurality of distribution points in the supply chain;

determining a replenishment method for each of the plurality of items at each of the plurality of distribution points in the supply chain; and

executing the replenishment method to create orders for items at any of the plurality of distribution points in the supply chain that fail to have a base stock level for any of the plurality of items thereby causing inventory within the supply chain to be managed in accordance with the critical stocking ratio.

5. The computer-readable media as recited in claim 4, wherein the instructions compile and aggregate historical demand data for use in providing the forecast of demand for each of the plurality of items.
6. The computer-readable media as recited in claim 5, wherein the historical demand data comprises data representative of demand created by a need to replenish each of the plurality of items at various ones of the plurality of distribution points within the supply chain.
7. The computer-readable media as recited in claim 5, wherein the historical demand data comprises data representative of demand created by a need to fulfill customer orders for each of the plurality of items.
8. The computer-readable media as recited in claim 4, wherein providing the forecast of demand for each of the plurality of items comprises taking into account historical effects of world factors.
9. The computer-readable media as recited in claim 4, wherein providing the forecast of demand for each of the plurality of items comprises considering a need for each of the plurality of items in performance of a maintenance task.

IX. Evidence Appendix

No evidence is being submitted herewith.

X. Related Proceedings Appendix

A copy of the Decision On Appeal in related application no. 09/867,174 is submitted herewith.

*CHI 55,894,190v1*

The opinion in support of the decision being entered today  
was not written for publication and  
is not binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

MAILED

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U.S. PATENT AND TRADEMARK OFFICE  
BOARD OF PATENT APPEALS  
AND INTERFERENCES

Ex parte ROBERT H. SCHEER

Appeal No. 2006-1854  
Application No. 09/867,174  
Technology Center 3600

ON BRIEF

Before OWENS, NAPPI and FETTING, Administrative Patent Judges.

NAPPI, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134 of the final rejection of claims 11 through 20. Claims 1 through 10 have been canceled. For the reasons stated *infra* we will not sustain the examiner's rejection of claims 11 through 20.

### THE INVENTION

The invention relates to supply chain management, specifically a method of selecting a fulfillment plan for moving an item within a supply chain. See page 1 of appellant's specification. Claim 11 is representative of the invention and is reproduced below:

11. A computer readable media having instructions executable by a computer for use in selecting a fulfillment plan for moving an item within a supply chain distributed over a plurality of geographic locations, the instructions performing steps comprising:

- receiving an order for an item;
- in response to receipt of the order for the item constructing a plurality of alternative fulfillment plans for moving the item from a sourcing point to each of the plurality of geographic locations within the supply chain;
- evaluating each of the constructed plurality of alternative fulfillment plans against a predetermined criteria; and
- selecting for implementation one of the constructed plurality of alternative fulfillment plans that most closely meets the predetermined criteria, the selected one of the plurality of alternative fulfillment plan being used to position the item at one of the plurality of geographic locations within the supply chain thereby making the item available for use in meeting the order.

### THE REFERENCES

The references relied upon by the examiner are:

Dietrich	5,216,593	Jun. 01, 1993
Altendahl	6,571,213	May 27, 2003 (Dec. 30, 1999)
Landvater	6,609,101	Aug. 19, 2003 (Mar. 25, 2000)

### THE REJECTION AT ISSUE

Claims 11, 12, and 14 through 20 stand rejected under 35 U.S.C. § 103 as being unpatentable over Altendahl in view of Landvater. Claim 13 stands rejected under 35 U.S.C. § 103 as being unpatentable over Altendahl in view of Landvater and Dietrich. Throughout the opinion we make reference to the briefs and the answer for the respective details thereof.

### OPINION

We have carefully considered the subject matter on appeal, the rejections advanced by the examiner and the evidence of obviousness relied upon by the examiner as support for the rejections. We have, likewise, reviewed and taken into consideration, in reaching our decision, Appellant's arguments set forth in the briefs along with the examiner's rationale in support of the rejections and arguments in rebuttal set forth in the examiner's answer.

With full consideration being given to the subject matter on appeal, the examiner's rejections and the arguments of appellant and the examiner, for the reasons stated *infra* we will not sustain the examiner's rejections of claims 11 through 20 under 35 U.S.C. § 103.

Appellant argues, on page 5 of the brief, that Altendahl teaches a system where a single geographic destination for an item is required to be first established. As such, appellant argues, on pages 5 and 6 of the brief, that Altendahl does not:

teach, or suggest at least the claimed elements of constructing a plurality of alternative fulfillment plans for moving an item that is the subject of an order from a sourcing point to each of plural geographic locations within the supply chain, evaluating each of the constructed plurality of alternative fulfillment plans against a predetermined criteria, and then selecting for implementation one of the constructed plurality of alternative fulfillment plans that most closely meets the predetermined criteria to thereby position the item that is the subject of the order at one of the plural geographic locations within the supply chain to thereby make the item available to meet the order. (emphasis original)

Further, on pages 6 and 7 of the brief, appellant argues that Landvater discloses a system to forecast replenishment needs at specific locations, i.e., determine the quantity of items to be shipped to a plurality of locations. On page 7 of the brief, appellant asserts that Landvater "is simply silent as to any method for constructing or selecting a plan to move the forecast amount of items at the forecast time to each of the retail stores." As such, appellant concludes that Landvater fails to suggest the desirability of constructing a plurality of alternative fulfillment plans for each of a plurality of geographic locations within the supply chain as claimed. Appellant asserts, on page 8 of the brief, that if Altendahl and Landvater were combined, Landvater's teaching would provide the destinations for the packages to be shipped and Altendahl's teaching would provide a system of selecting the route to the destinations. Appellant asserts, on page 9 of the brief, that this would not be the claimed system "in which the geographic location in which an item that is the subject of the order is to be positioned is not known until after the instructions evaluate each of the *construed alternative fulfillment plans for each of a plurality of geographic locations within a supply chain* against a predetermined criteria." (emphasis original).

The examiner's response to appellant's arguments is on pages 7 through 14 of the answer. On pages 7 and 8 of the answer, the examiner finds that Altendahl teaches all of the limitations of claim 11 "except that [a] plurality of geographical destinations are considered instead of one." (emphasis original) The examiner finds that Altendahl suggests that fulfillment plans are constructed for plural parcels which could be destined for different addresses. On pages 8 and 9 of the answer, the examiner finds that Landvater teaches moving an item or items to replenish inventories in a plurality of stores in a supply chain. Based upon these findings the examiner states, on page 9 of the answer that:

the teachings of Landvater are applicable to the Altendahl's example of a business company ordering computer systems on [sic: from] a seller because it would be obvious to one of an ordinary skilled [sic.] in the art that a business company can have several installations/stores at different geographical locations requiring [the] same items and supplies so that they are ordered simultaneously for all the branches to save cost of operation and get price advantage.

The examiner states, on page 12 of the answer, that the order or sequence of the steps in a method is not a requirement unless the claim specially recites them as so. Further, on page 14 of the answer, the examiner states:

In response to the applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., *the geographic location in which an item that is the subject of the order is to be positioned is not known until after the instructions evaluate each of the constructed alternative fulfillment plans for each of a plurality of geographic locations within a supply chain against a predetermined criteria.*) are not recited in the rejected claim(s). (emphasis original)

We disagree with the examiner's claim interpretation and consequently with the examiner's determination that the claims are obvious over the combination of Altendahl and Landvater. We concur with the examiner that the claim does not directly recite "the geographic location in which an item that is the subject of the order is to be positioned is not known until after the instructions evaluate each of the constructed alternative fulfillment plans for each of a plurality of geographic locations within a supply chain against a predetermined criteria." Nonetheless we find that the scope of the claim is limited to such a system. Claim 11 recites:

in response to receipt of the order for the item constructing a plurality of alternative fulfillment plans for moving the item from a sourcing point to each of the plurality of geographic locations within the supply chain;  
evaluating each of the constructed plurality of alternative fulfillment plans against a predetermined criteria; and  
selecting for implementation one of the constructed plurality of alternative fulfillment plans that most closely meets the predetermined criteria.

We hold that the claim necessarily requires the steps to be performed in the order recited. The alternative fulfillment plans are constructed in response to receipt of an order, the evaluation of the fulfillment plans can not occur until after the fulfillment plans are constructed and the selection of the fulfillment plans can not occur until they are evaluated against the criteria. Further, claim 11 recites "the selected one of the plurality of alternative fulfillment plan being used to position the item at one of the plurality of geographic locations within the supply chain," thus claim 11 recites a system that determines the location for an ordered item to be moved to in response to evaluating and selecting a plan to move the ordered item from a sourcing point to more than one location. We do not find that, either Altendahl or Landvater teach or suggest such a feature.

We find that Altendahl teaches a system which evaluates a plurality of methods of shipping a package and selects the appropriate shipping method based upon a set of rules. While Altendahl does teach that the rules may cover a plurality of locations (see for example, figure 6 and discussion in column 12, lines 19 through 39), we do not find that Altendahl teaches or suggests that in response to an order, more than one destination is evaluated for the same order and a determination is made as to which destination the item ordered is to be shipped. We find that Landvater teaches a system for forecasting a retail store's needs for items. See abstract. While Landvater does teach the items may be shipped to different locations in the supply chain, we do not find that Landvater, in response to an order, constructs alternative fulfillment plans to ship the ordered item to different locations and then select the location based upon an evaluation of the fulfillment plan. Thus, we do not find that the combination of Altendahl and Landvater teach or suggest the invention as claimed in independent claim 11. Claims 12 and 14 through 20 depend upon claim 11. Accordingly, we will not sustain the examiner's rejection of claim 11, 12, 14 through 20 under 35 U.S.C. § 103 as being unpatentable over Altendahl in view of Landvater.

Appeal No. 2006-1854  
Application No. 09/867,174

The examiner rejected claim 13 under 35 U.S.C. § 103 as being unpatentable over Altendahl in view of Landvater and Dietrich. Claim 13 depends upon claim 11. The examiner has not asserted nor do we find that Dietrich teaches or suggests modifying Altendahl or Landvater to construct alternative fulfillment plans to ship the ordered item to different locations and then select the location based upon an evaluation of the fulfillment plan. Accordingly, we will not sustain the examiner's rejection of claim 13 for the reasons discussed *supra* with respect to claim 11.

Accordingly, we will not sustain the examiner's rejection of claims 11 through 20, under 35 U.S.C. § 103. The decision of the examiner is reversed.

REVERSED

*Terry J. Owens*  
TERRY J. OWENS  
Administrative Patent Judge

*Robert E. Nappi*  
ROBERT E. NAPPI  
Administrative Patent Judge

*Anton W. Fetting*  
ANTON W. FETTING  
Administrative Patent Judge

)  
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REN/vsh

Appeal No. 2006-1854  
Application No. 09/867,174

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